



PTO/SB/21 (08-03)

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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

Total Number of Pages in This Submission

Application Number	10/677,565
Filing Date	10-02-2003
First Named Inventor	Jonathan M. Rich
Art Unit	
Examiner Name	
Attorney Docket Number	SEH 026 P2

**ENCLOSURES (Check all that apply)**

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Fee Transmittal Form<br><input type="checkbox"/> Fee Attached<br><input type="checkbox"/> Amendment/Reply<br><input type="checkbox"/> After Final<br><input type="checkbox"/> Affidavits/declaration(s)<br><input type="checkbox"/> Extension of Time Request<br><input type="checkbox"/> Express Abandonment Request<br><input checked="" type="checkbox"/> Information Disclosure Statement<br><input type="checkbox"/> Certified Copy of Priority Document(s)<br><input type="checkbox"/> Response to Missing Parts/Incomplete Application<br><input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53 | <input type="checkbox"/> Drawing(s)<br><input type="checkbox"/> Licensing-related Papers<br><input type="checkbox"/> Petition<br><input type="checkbox"/> Petition to Convert to a Provisional Application<br><input type="checkbox"/> Power of Attorney, Revocation<br><input type="checkbox"/> Change of Correspondence Address<br><input type="checkbox"/> Terminal Disclaimer<br><input type="checkbox"/> Request for Refund<br><input type="checkbox"/> CD, Number of CD(s) _____ | <input type="checkbox"/> After Allowance communication to Technology Center (TC)<br><input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences<br><input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)<br><input type="checkbox"/> Proprietary Information<br><input type="checkbox"/> Status Letter<br><input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):<br><b>RETURN CARD</b><br><b>2 Non-Patent References</b> |
|--|--|---|

Remarks

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	MATTHEW R. JENKINS, ESQ. JACOX, MECKSTROTH & JENKINS
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Signature

Date

**CERTIFICATE OF TRANSMISSION/MAILING**

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

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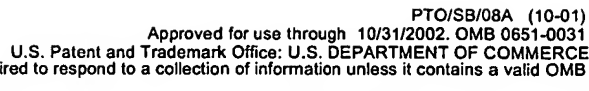
Date

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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of

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SEH 026 P2

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Substitute for form 1449A/PTO			<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  <i>(use as many sheets as necessary)</i>			<b>Application Number</b>	10/677,565
			<b>Filing Date</b>	October 2, 2003
			<b>First Named Inventor</b>	Jonathan M. Rich
			<b>Art Unit</b>	
			<b>Examiner Name</b>	
			<b>Attorney Docket Number</b>	SEH 026 P2
Sheet	4	of		

U.S. PATENT DOCUMENTS					
Examiner Initials	Cite No. 1	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number - Kind Code <sup>2</sup> (if known)			
		us- 6,019,205	02-01-2000	Willwerth et al.	
		us-6,035,991	03-14-2000	Willwerth et al.	
		us- 6,036,903	03-14-2000	Kierbel et al.	
		us- 6,047,806	04-11-2000	Sasse	
		us- 6,062,367	05-16-2000	Hirayanagi et al.	
		us- 6,065,579	05-23-2000	Nels	
		us-6,135,256	10-24-2000	Han et al.	
		us- 6,145,645	11-14-2000	Kroll et al.	
		us-6,170,629	01-09-2001	Suzuki et al.	
		us- 6,203,649	03-20-2001	Kremsmair et al.	
		us- 6,213,273	04-10-2001	Menard et al.	
		us- 6,247,568	06-19-2001	Takashima et al.	
		us- 6,273,228	08-14-2001	Otto et al.	
		us- 6,290,046	09-18-2001	Menard et al.	
		us- 6,293,382	09-25-2001	Nishide et al.	
		us- 6,345,711	02-12-2002	Sullivan	
		us- 6,370,755	04-16-2002	Wakamori	
		us- 6,397,997	06-04-2002	Kato	
		us- 6,409,006	06-25-2002	Wakamori et al.	
		us- 6,439,363	08-27-2002	Nels	

[illegible]

Examiner Signature		Date Considered	
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). <sup>2</sup> See Kind Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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PTO/SB/08A (10-01)  
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Substitute for form 1449A/PTO

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

*(use as many sheets as necessary)*

Sheet | 5

of

**Complete if Known**

Application Number	10/677,565
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<b>Filing Date</b>	October 2, 2003
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First Named Inventor	Jonathan M. Rich
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Art Unit

Examiner Name

Attorney Docket Number SEH 026 P2

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

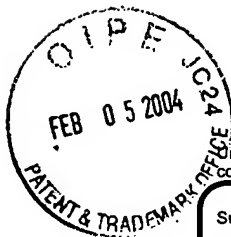
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Date Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

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Substitute for form 1449B/PTO		<b>Complete if Known</b>	
<b>INFORMATION DISCLOSURE STATEMENT BY APPLICANT</b>  (use as many sheets as necessary)		Application Number	10/677,565
		Filing Date	October 2, 2003
		First Named Inventor	Jonathan M. Rich
		Group Art Unit	
		Examiner Name	
Sheet 6	of	Attorney Docket Number	SEH 026 P2

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
Examiner Initials <sup>*</sup>	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		Select Powertrain Technologies. Design Review of Daimler Chrysler TCC Carbon Friction Facing. 19 Nov. 2001.	
		Select Powertrain Technologies Corp. Tremec – Select Open Issue. 2 Feb. 2002.	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> Applicant is to place a check mark here if English language Translation is attached.

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of

Inventor(s) : Jonathan M. Rich, et al.  
Serial No. : 10/677,565  
Filed : October 2, 2003  
Title : FRICTION FACING  
MATERIAL FOR  
USE IN A FRICTION  
ENVIRONMENT  
  
Group :  
Docket : SEH 026 P2

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Alexandria, VA 22313-1450

Sir:

INFORMATION DISCLOSURE STATEMENT UNDER 37 CFR §1.97(b)

Pursuant to the provisions of 37 CFR §1.97(b), Applicant(s) wishes to disclose the materials listed below and on the attached form PTO/SB/08A which the Examiner may find relevant to the examination of the above-identified patent application. Copies of the non-patent references are enclosed herewith.

<u>Patent No.</u>	<u>Issued</u>	<u>Inventor</u>	<u>Title</u>
2,690,248	9/28/54	McDowall	Clutch Plate With Grooves For Lubricant or Coolant
2,850,118	9/2/58	Byers	Brake Having a Non-Fusing Brake Element
3,042,168	7/3/62	Binder	Friction Coupling
3,094,194	6/18/63	Kershner	Friction Device
3,198,295	8/3/65	Fangman et al.	Friction Couple Cooling Device
3,250,349	5/10/66	Byrnes et al.	Disc Brake
3,412,836	11/26/68	Wilmer	Friction Disc of Segmented Elements
3,491,865	1/27/70	Stockton	Clutch Structure With Segmented Clutch Plates
3,534,842	10/20/70	Davison, Jr.	Lubricated Friction Device



3,871,934	3/18/75	Marin	Resurfacing Brake Discs
3,885,659	5/27/75	Smith	Segmental Friction Member For Brake Or Clutch
3,927,241	12/16/75	Augustin	Friction Elements Running In Oil
3,937,303	2/10/76	Allen et al.	Friction Plates
4,027,758	6/7/77	Gustavsson et al.	Wet Disc Clutch And Method Of Force Cooling The Same
4,139,085	2/13/79	Kanbe et al.	Dry Disc-Type Clutch
4,260,047	4/7/81	Nels	Friction Disc and Method of Making Same
4,267,912	5/19/81	Bauer et al.	Synchronizing Ring
4,291,794	9/29/81	Bauer	Power Transmission and Energy Absorbing Systems
4,396,100	8/2/83	Eltze	Friction Lining For Multiple-Disk Clutches Or Multiple-Disk Brakes
4,449,621	5/22/84	F'Geppert	Segmented Clutch Plates
4,674,616	6/23/87	Mannino, Jr.	Friction Disc With Segmented Core Plate and Facings
4,726,455	2/23/88	East	Clutch Facings
4,770,283	9/13/88	Pütz et al.	Friction Ring for Clutches or Brakes, and a Method and Device For Producing the Friction Ring
4,878,282	11/7/89	Bauer	Method For the Production of Friction Plates, Synchronizing Blocker Rings or Similar Structures
4,913,267	4/3/90	Campbell et al.	Vehicle Disc Brakes Of The Liquid Cooled Type
4,917,743	4/17/90	Gramberger et al.	Method For Manufacturing a Friction Ring Having a Conical or Cylindrical Friction Surface

4,995,500	2/26/91	Payvar	Groove Pattern For High Thermal Capacity Wet Clutch
5,038,628	8/13/91	Kayama	Synchronizer Ring For Synchronous Meshing Type Speed Change Gear
5,076,882	12/31/91	Oyanagi et al.	Shaping Apparatus For a Synchronizer Ring
5,094,331	3/10/92	Fujimoto et al.	Wet-Type Multiplate Clutch
5,101,953	4/7/92	Payvar	High Capacity Viscous Pumping Groove Pattern For a Wet Clutch
5,134,005	7/28/92	Wada et al.	Friction Element For Operating in Fluid
5,143,192	9/1/92	Vojacek et al.	Friction Clutch or Friction Brake
5,176,236	1/5/93	Ghidorzi et al.	Facing Material For Wet Clutch Plate and Methods For Fabricating and Applying Same
5,207,305	5/4/93	Iverson	Method and Apparatus For Incorporating Hydrodynamic Film to Transfer or Retard Motion and Dissipate Heat
5,332,075	7/26/94	Quigley et al.	Friction Disc With Segmented Friction Facing
5,335,765	8/9/94	Takakura et al.	Wet-Type Friction Member With Grooves Shaped For Improved Oil Film Removing Effect
5,439,087	8/8/95	Umezawa	Wet-Type Multi-Plate Frictional Engagement Apparatus
5,454,454	10/03/95	Easton et al.	Polygonal Friction Disk and Method
5,460,255	10/24/95	Quigley	Universal Segmented Friction Clutch Facing
5,495,927	3/5/96	Samie et al.	Controlled Cooling Apparatus For Torque Transfer Devices

5,551,549	9/3/96	Cooke et al.	Friction Facing and Carrier Assembly
5,566,802	10/22/96	Kirkwood	Continuous Slip Hydrokinetic Torque Converter Clutch Interface With Circuitous Groove For Cooling and Wetting Clutch Interface Zone
5,615,758	4/1/97	Nels	Fabric Arrangement and Method For Controlling Fluid Flow
5,660,259	8/26/97	Peng et al.	Groove Structure of Wet-Type Friction Engaging Element
5,669,474	9/23/97	Dehrmann et al.	Hydrodynamic Torque Converter With Lock-Up Clutch
5,671,835	9/30/97	Tanaka et al.	Wet Friction Member
5,682,971	11/4/97	Takakura et al.	Friction Plate For High Oil Passage and Cooling
5,776,288	7/7/98	Stefanutti et al.	Method and Apparatus For Lined Clutch Plate
5,799,763	9/1/98	Dehrmann	Lock-Up Clutch of a Hydrodynamic Torque Converter
5,819,888	10/13/98	Tamura et al.	Friction Plates For Friction Type Coupling Device
5,842,551	12/1/98	Nels	Fabric Arrangement and Method For Controlling Fluid Flow
5,858,511	1/12/99	Lisowsky	Grooved Friction Material, Method of Making Same, and Wet Friction Member Using Grooved Friction Material
5,878,860	3/9/99	Pavangat et al.	Plate and Facing Assembly
5,897,737	4/27/99	Quigley	Method For Making a Core Plate Having Multiple Friction Material Segments

5,921,366	7/13/99	Walth et al.	Friction Element For Use in Clutches
5,934,435	8/10/99	Bauer	Disc Assembly
5,954,172	9/21/99	Mori	Friction Facing in Slip-Controlled Lockup Clutch Configuration
5,975,260	11/2/99	Fischer et al.	Hydrokinetic Torque Converter With Bypass Clutch Having Grooved Friction Lining
5,998,311	12/7/99	Nels	Fabric Arrangement and Method For Controlling Fluid Flow
6,019,205	2/1/00	Willwerth et al.	Method and Apparatus For Lined Clutch Plate
6,035,991	3/14/00	Willwerth et al.	Blocked Slot Clutch Plate Lining
6,036,903	3/14/00	Kierbel et al.	Method of Making an Annular Friction Liner
6,047,806	4/11/00	Sasse	Hydrodynamic Torque Converter With Depressions in the Extension Area of the Friction Linings
6,062,367	5/16/00	Hirayanagi et al.	Friction Plate
6,065,579	5/23/00	Nels	Synchronizer Blocker Rings Used in Manual Transmissions
6,135,256	10/24/00	Han et al.	Wet Friction Disc Clutch
6,145,645	11/14/00	Kroll et al.	Disk Assembly
6,170,629	1/9/01	Suzuki et al.	Friction Plate
6,203,649	3/20/01	Kremsmair et al.	Method of Manufacturing a Flat Friction Ring
6,213,273	4/10/01	Menard et al.	Friction Liner Having a Network of Grooves, For a Clutch
6,247,568	6/19/01	Takashima et al.	Friction Member For Disk Assembly, Especially For Torque Converter

6,273,228	8/14/01	Otto et al.	Hydrokinetic Torque Converter and Lockup Clutch Therefor
6,290,046	9/18/01	Menard et al.	Friction Liner Having A Network Of Grooves, For a Clutch
6,293,382	9/25/01	Nishide et al.	Friction Plate For Wet Clutch
6,345,711	2/12/02	Sullivan	Segmented Friction Member
6,370,755	4/16/02	Wakamori	Method For Producing a Friction Plate
6,397,997	6/4/02	Kato	Friction Engaging Device
6,409,006	6/25/02	Wakamori et al.	Friction Plate
6,439,363	8/27/02	Nels	Fabric Arrangement and Method for Controlling Fluid Flow
6,454,072	9/24/02	Merkel et al.	Annular Friction-Clutch Facing For a Multi-Disk Clutch
6,497,312	12/24/02	Sasse et al.	Hydrodynamic Coupling Device
6,499,579	12/31/02	Ono et al.	Wet Type Friction Member
6,557,685	5/6/03	Hattori	Multiple Lockup Clutch and Torque Converter With the Same Clutch Incorporated Therein
6,581,740	6/24/03	Szalony	Multiple Disc Clutch Pack Having Rheological Film Layer
6,601,684	8/5/03	Collis et al.	Unitary, Circumferentially Edge Wound Friction Material Clutch Plate, and Method of Making Same

Non-Patent References:

Select Powertrain Technologies. *Design Review of Daimler Chrysler TCC Carbon Friction Facing*. 19 Nov. 2001. A disclosure of November 19, 2001, showing groove design having features as shown on pages 3 – 8, and groove dimension calculations on pages 9 and 10.

Select Powertrain Technologies Corp. *Tremec – Select Open Issue*. 2 Feb. 2002. A Quotation to a customer regarding TR-4050 Groove Design. Page 3 suggests use of a bonded material (such as shown in View E of page. 2 of the quote) with three variations. Column 1, page 3 suggests bonded material with channels created by bonding through the material and plate. Column 2, page 3, suggests bonded material with a pressed axial groove. Column 3 suggests bonded material with grooves and a pressed axial groove as shown in Views B and E of page 2.

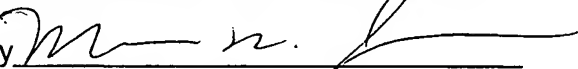
The filing of this Information Disclosure Statement shall not be construed to be an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56(b). By filing this statement, Applicant(s) is not making any representation as to whether any of the references referred to herein are material. Further, Applicant(s) cites these references without prejudice, and Applicant(s) reserves the right to contest the status of these references as prior art.

Although Applicant(s) believes that no fee is required by filing this statement, the Commissioner is authorized to charge any required fee to **Deposit Account 50-1287**.

(Should **Deposit Account 50-1287** be deficient, please charge any further deficiencies to Deposit Account 10-0220).

Respectfully submitted,

JACOX, MECKSTROTH & JENKINS

By 

Matthew R. Jenkins

Reg. No. 34,844

2310 Far Hills Building  
Dayton, Ohio 45419-1575  
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January 16, 2004